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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/656,256

09/08/2003

Anbo Wang

3811-007-27

8598

7590

07/29/2005

Supervisor, Patent Prosecution Services  
PIPER RUDNICK LLP  
1200 Nineteenth Street, N.W.  
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EXAMINER

KIANNI, KAVEH C

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,256	<b>Applicant(s)</b> WANG, ANBO	
	<b>Examiner</b> Kianni C. Kaveh	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicant's election with traverse of claims 25-41 in a paper submitted on 5/25/05 is acknowledged. However, applicant has amended the previously restricted claims and submitted a new claim 41 that would require a new restriction requirement as follows:

#### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 25-31 and 41, drawn to forming a mask over an optical fiber, the optical fiber having a core surrounded by a cladding, the mask having a single opening; exposing the opening to radiation such that a refractive index of a portion of the fiber corresponding to the opening is changed, classified in class 385, subclass 124.
- II. Claims 32-37, drawn to launching an optical pulse into an optical fiber, the optical fiber having a plurality of optical sensors formed therein, the optical sensors being spaced apart; and measuring amplitudes of a backward-propagating reflection peaks in the fiber at a plurality of times, each of the times corresponding to a location of one of the plurality of optical, classified in class 385, subclass 12.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such

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as forming fiber optical wavelength sensing device used in fiber optical communication for add/drop of specific wavelength channels rather than forming optical fiber through the steps of masking and changing refractive index of the fiber optic material. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention:

- A. Claims 1-18, drawn to a method including the steps of forming an optical fiber sensor comprising/including the steps of a first end of a first optical fiber with a film, the film having a refractive index different from the first optical fiber; and splicing a second fiber to the first fiber, the second fiber having a refractive index different from the film.
- B. Claims 10-18, drawn to a method including the steps of forming an optical fiber sensor comprising/including the steps of exposing the first end and the second end to a vapor of a dielectric material such that dielectric material is deposited in the gap.
- C. Claims 19-24, drawn to a method including the steps of forming an optical fiber sensor including the steps of removing a portion of the cladding to form a void, the void having a first surface and a second surface, the first and second surfaces being parallel.

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- D. Claims 25-31 and 41, drawn to a method including the steps of forming an optical fiber sensor including the steps of forming a mask over an optical fiber, the optical fiber having a core surrounded by a cladding, the mask having a single opening; exposing the opening to radiation such that a refractive index of a portion of the fiber corresponding to the opening is changed.
- E. Claims 32-37, drawn to a method including the steps of launching an optical pulse into an optical fiber, the optical fiber having a plurality of optical sensors formed therein, the optical sensors being spaced apart; and measuring amplitudes of a backward-propagating reflection peaks in the fiber at a plurality of times, each of the times corresponding to a location of one of the plurality of optical.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was made to Mr. Heintz on 7/25/05 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9306 (for formal communications intended for entry)

**or:**

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.



**KAVEH KIANNI  
PRIMARY EXAMINER**

K. Cyrus Kianni  
Primary Patent Examiner  
Group Art Unit 2883

July 25, 2005